

Interview Summary

Application No.

09/823,236

Applicant(s)

NGUY, HAI CHI

Examiner

David D. Davis

Art Unit

2652

All participants (applicant, applicant's representative, PTO personnel):

(1) David D. Davis.

(3) _____.

(2) James Broder (43,514).

(4) _____.

Date of Interview: 17 February 2005.

Type: a) ☒ Telephonic b) ☐ Video Conference
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☐ No.
If Yes, brief description: _____.

Claim(s) discussed: 16-24, 26 and 29-51.

Identification of prior art discussed: IBM Technical Disclosure Bulletin, November 1990 and Nakazawa et al (JP 10-69763).

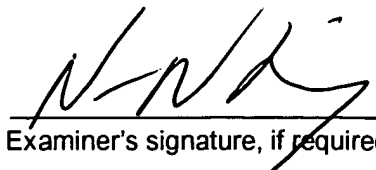
Agreement with respect to the claims f) ☐ was reached. g) ☒ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Discussed amending the claims so that they would be favorably considered. See the attached Examiner's amendment.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.


Examiner's signature, if required

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Nguy
Serial No: 09/823,236
Filed: March 30, 2001
For: Magnetic Shield for the Drive Housing
 of a Recording Drive
Examiner: Davis, David D.
Attorney Docket: Q01-1025-US1/11198.64

Art Unit
2652DRAFT AMENDED CLAIM SET

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

CERTIFICATE OF MAILING UNDER 37 CFR §1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class, postage prepaid mail, in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this the __ day of __, 2005.

____ JAMES P. BRODER, Attorney for Applicant—Registration No. 43,514

Current Status of All Claims in the Application:

1-15. (Canceled)

16. (Currently Amended) A ~~drive housing for a disk drive~~ for storage data, the disk drive ~~including a magnetic storage disk having a disk surface~~, the drive housing comprising:

a storage disk;

a data transducer that magnetically interacts with the storage disk;

a drive housing including a housing shield positioned near the storage disk, the housing shield being formed from material having a relative permeability of at least approximately 50,000.

17. (Currently Amended) The disk drive housing of claim 16 wherein the housing shield has a thickness of at least approximately 0.30 millimeters.

18. (Currently Amended) The disk drive housing of claim 17 wherein the housing shield is substantially formed from material having a relative permeability of at least approximately 100,000.

19. (Currently Amended) The disk drive housing of claim 16 wherein the housing shield further includes a base shield portion and a cover shield portion that are positioned substantially parallel to the disk surface of the magnetic storage disk, and wherein the cover shield portion is positioned so that the storage disk is substantially between the cover shield portion and the base shield portion.

20. (Currently Amended) The disk drive housing of claim 17 wherein the base shield portion and the cover shield portion are sized and shaped to shield the magnetic storage disk from an external magnetic field that is substantially perpendicular to the storage surface of the storage disk.

21. (Currently Amended) The disk drive housing of claim 20 wherein the magnetic storage disk is positioned entirely between a superimposition of the cover shield portion onto the base shield portion.

22. (Currently Amended) The disk drive housing of claim 20 wherein the housing shield further includes a wall shield portion that secures the cover shield portion to the base shield portion, wherein the wall shield portion is positioned substantially perpendicular to the storage surface of the storage disk.

23. (Currently Amended) The disk drive housing of claim 17 wherein the housing shield is formed substantially from a nickel-iron alloy.

24. (Currently Amended) The disk drive housing of claim 17 wherein the housing shield is sized, shaped and formed from material so that the housing shield has an attenuation of field of at least approximately 10 dB.

25. (Canceled)

26. (Previously Presented) A disk drive for storing data, the disk drive comprising:

a storage disk including a storage surface; and

a drive housing that encircles the storage disk, the drive housing including a housing shield positioned near the storage disk, the housing shield having an attenuation of field of at least approximately 50 dB and including (i) a base shield portion that is positioned substantially parallel to the storage surface of the storage disk, (ii) a cover shield portion that is positioned substantially parallel to the storage surface of the storage disk, the storage disk being positioned substantially between the cover shield portion and the base shield portion, and (iii) a wall shield portion that secures the cover shield portion to the base shield portion, the wall shield portion being positioned substantially perpendicular to the

storage surface of the storage disk; wherein each of the shield portions is formed from material having a relative permeability of at least approximately 100,000.

27-28. (Canceled)

29. (Currently Amended) A disk drive for storing data, the disk drive comprising:

a storage disk having a storage surface;

a data transducer that magnetically interacts with the storage surface; and

a drive housing that is positioned so that the storage disk is rotatably mounted to the drive housing, the drive housing including a housing shield that is formed from material that provides an attenuation of field of at least 25 dB that at least partially shields the storage surface from an external magnetic field that is applied in a direction that is substantially perpendicular to the storage surface.

30. (Previously Presented) The disk drive of claim 29 wherein the drive housing includes a base and a cover that are positioned substantially parallel to the storage surface, the storage disk being positioned substantially between the base and the cover, and wherein the housing shield forms a portion of at least one of the base and the cover to provide an attenuation of field of at least approximately 25 dB that at least partially shields the storage surface from an external magnetic field that is applied in a direction that is substantially perpendicular to the storage surface.

31. (Previously Presented) The disk drive of claim 29 wherein the drive housing includes a base and a cover that are positioned substantially parallel to the storage surface, the storage disk being positioned substantially between the base and the cover, and wherein the housing shield forms a portion of the base and the cover to provide an attenuation of field of at least approximately 25 dB that at least partially shields the storage surface from an external magnetic field that is applied in a direction that is substantially perpendicular to the storage surface.

32. (Previously Presented) The disk drive of claim 29 wherein the housing shield is formed from material that provides an attenuation of field of at least 50 dB that at least partially shields the storage surface from an external magnetic field that is applied in a direction that is substantially perpendicular to the storage surface.

33. (Previously Presented) The disk drive of claim 29 wherein the drive housing includes a base and a cover that are positioned substantially parallel to the storage surface, the storage disk being positioned substantially between the base and the cover, and wherein the housing shield forms a portion of at least one of the base and the cover to provide an attenuation of field of at least approximately 50 dB that at least partially shields the storage surface from an external magnetic field that is applied in a direction that is substantially perpendicular to the storage surface.

34. (Previously Presented) The disk drive of claim 29 wherein the drive housing includes a base and a cover that are positioned substantially parallel to the storage surface, the storage disk being positioned substantially between the base and the cover, and wherein the housing shield forms a portion of the base and the cover to provide an attenuation of field of at least approximately 50 dB that at least partially shields the storage surface from an external magnetic field that is applied in a direction that is substantially perpendicular to the storage surface.

35. (Previously Presented) The disk drive of claim 29 wherein the housing shield is formed from material that provides an attenuation of field of at least 50 dB that at least partially shields the storage surface from an external magnetic field that is applied in a direction that is substantially parallel to the storage surface.

36. (Previously Presented) The disk drive of claim 35 wherein the drive housing includes a one or more side walls that are positioned substantially perpendicular to the storage surface, and wherein the housing shield forms a portion of one or more of the sidewalls to provide an attenuation of field of at least approximately 50 dB that at least partially shields the storage surface from an external magnetic field

that is applied in a direction that is substantially parallel to the storage surface.

37. (Previously Presented) The disk drive of claim 29 wherein the housing shield is substantially formed from material having a relative permeability of at least approximately 50,000.

38. (Previously Presented) The disk drive of claim 29 wherein the housing shield is substantially formed from material having a relative permeability of at least approximately 100,000.

39. (Previously Presented) The disk drive of claim 29 wherein the housing shield is formed from a nickel-iron alloy.

40. (Currently Amended) A disk drive for storing data, the disk drive comprising:

a storage disk having a storage surface;

a data transducer that magnetically interacts with the storage surface; and

a drive housing that is positioned so that the storage disk is rotatably mounted to the drive housing, the drive housing including a housing shield that is formed from material that provides an attenuation of field of at least 50 dB that at least partially shields the storage surface from an external magnetic field that is applied in a direction that is substantially parallel to the storage surface.

41. (Previously Presented) The disk drive of claim 40 wherein the drive housing includes a one or more side walls that are positioned substantially perpendicular to the storage surface, and wherein the housing shield forms a portion of one or more of the sidewalls to provide an attenuation of field of at least approximately 50 dB that at least partially shields the storage surface from an external magnetic field that is applied in a direction that is substantially parallel to the storage surface.

42. (Previously Presented) The disk drive of claim 40 wherein the drive

housing includes a base and a cover that are positioned substantially parallel to the storage surface, the storage disk being positioned substantially between the base and the cover, and wherein the housing shield forms a portion of at least one of the base and the cover to provide an attenuation of field of at least approximately 25 dB that at least partially shields the storage surface from an external magnetic field that is applied in a direction that is substantially perpendicular to the storage surface.

43. (Previously Presented) The disk drive of claim 40 wherein the drive housing includes a base and a cover that are positioned substantially parallel to the storage surface, the storage disk being positioned substantially between the base and the cover, and wherein the housing shield forms a portion of the base and the cover to provide an attenuation of field of at least approximately 25 dB that at least partially shields the storage surface from an external magnetic field that is applied in a direction that is substantially perpendicular to the storage surface.

44. (Previously Presented) The disk drive of claim 40 wherein the housing shield is formed from material that provides an attenuation of field of at least 50 dB that at least partially shields the storage surface from an external magnetic field that is applied in a direction that is substantially perpendicular to the storage surface.

45. (Previously Presented) The disk drive of claim 40 wherein the housing shield is substantially formed from material having a relative permeability of at least approximately 50,000.

46. (Previously Presented) The disk drive of claim 40 wherein the housing shield is substantially formed from material having a relative permeability of at least approximately 100,000.

47. (Previously Presented) The disk drive of claim 40 wherein the housing shield is formed from a nickel-iron alloy.

48. (Currently Amended) A method of shielding a magnetic storage disk of a disk drive from an external magnetic field, the magnetic storage disk having a storage surface that stores data, the method including the steps of:

rotatably mounting ~~[[a]] the~~ magnetic storage disk ~~having a storage surface~~ to a drive housing having a housing shield; ~~and~~

~~forming the housing shield~~ that is formed from material that provides an attenuation of field of at least approximately 25 dB to at least partially shield the storage surface from an external magnetic field that is applied in a direction that is substantially perpendicular to the storage surface.

49. (Currently Amended) The method of claim 48 wherein the ~~step of forming the housing shield includes forming the~~ housing shield is formed from material that provides an attenuation of field of at least approximately 50 dB to at least partially shield the storage surface from an external magnetic field that is applied in a direction that is substantially parallel to the storage surface.

50. (Previously Presented) The method of claim 49 wherein the ~~step of forming the housing shield includes forming the~~ housing shield is formed from material that provides an attenuation of field of at least approximately 50 dB to at least partially shield the storage surface from an external magnetic field that is applied in a direction that is substantially perpendicular to the storage surface.

51. (New) The method of claim 48 wherein the housing shield is substantially formed from material having a relative permeability of at least approximately 50,000.

Conclusion

In conclusion, Applicant respectfully asserts that claims 16-24, 26 and 29-51 are patentable for the reasons set forth above, and that the application is now in a condition for allowance. Accordingly, an early notice of allowance is respectfully requested. The Examiner is requested to call the undersigned at 858-456-1951 for any reason that would advance the instant application to issue.

Dated this ___ day of ___, 2005.

Respectfully submitted,

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